

**R1610I**  
**Brief Sheet**  
**16-BIT RISC MICROCONTROLLER**

## 1. Features

- **CPU Core**

- RDC's proprietary RISC architecture
- Five-stage pipeline architecture
- Operation frequency: 75 Mhz
- Supports an 8K-byte uniform cache
- Supports CPU ID
- Software is compatible with the 80C186 microprocessor

- **Bus interface**

- 8-bit or 16-bit external bus dynamic access
- Supports a glue-less and simplified 16-bit PCMCIA bus interface

- **ROM/RAM/SDRAM Controller and Addressing Space**

- Supports 16-bit data bus width
- 16-bit SDRAM control Interface
- 1M addressing space/A[19:0]
- 64K-byte I/O space
- With 8-bit or 16-bit boot ROM bus size
- Supports an independent data/address bus for the external I/O device

- **Two Independent DMA Channels**

- **Interrupt Controller**

- Provides 5 maskable external interrupts and 1 non-maskable external interrupt

- **General Programmable I/O**

- Supports 18 PIO pins
- Programmable chip-select logic for memory or I/O bus cycle decoder

- **Counter/Timers**

- 3 independent 16-bit timers
- 1 independent programmable watchdog timer

- **High Performance UART Ports**

- Supports two 16550 UART serial channels with 16-byte FIFO and hardware flow control
- Programmable wait-state generators

- **Fast Ethernet MAC Ports**

- 1-port Fast Ethernet MAC with MII interface

- **Operating Voltage Range**

- Core voltage: 2.5V  $\pm$  5%
- I/O voltage: 3.3V  $\pm$  10%

- **Package Information**

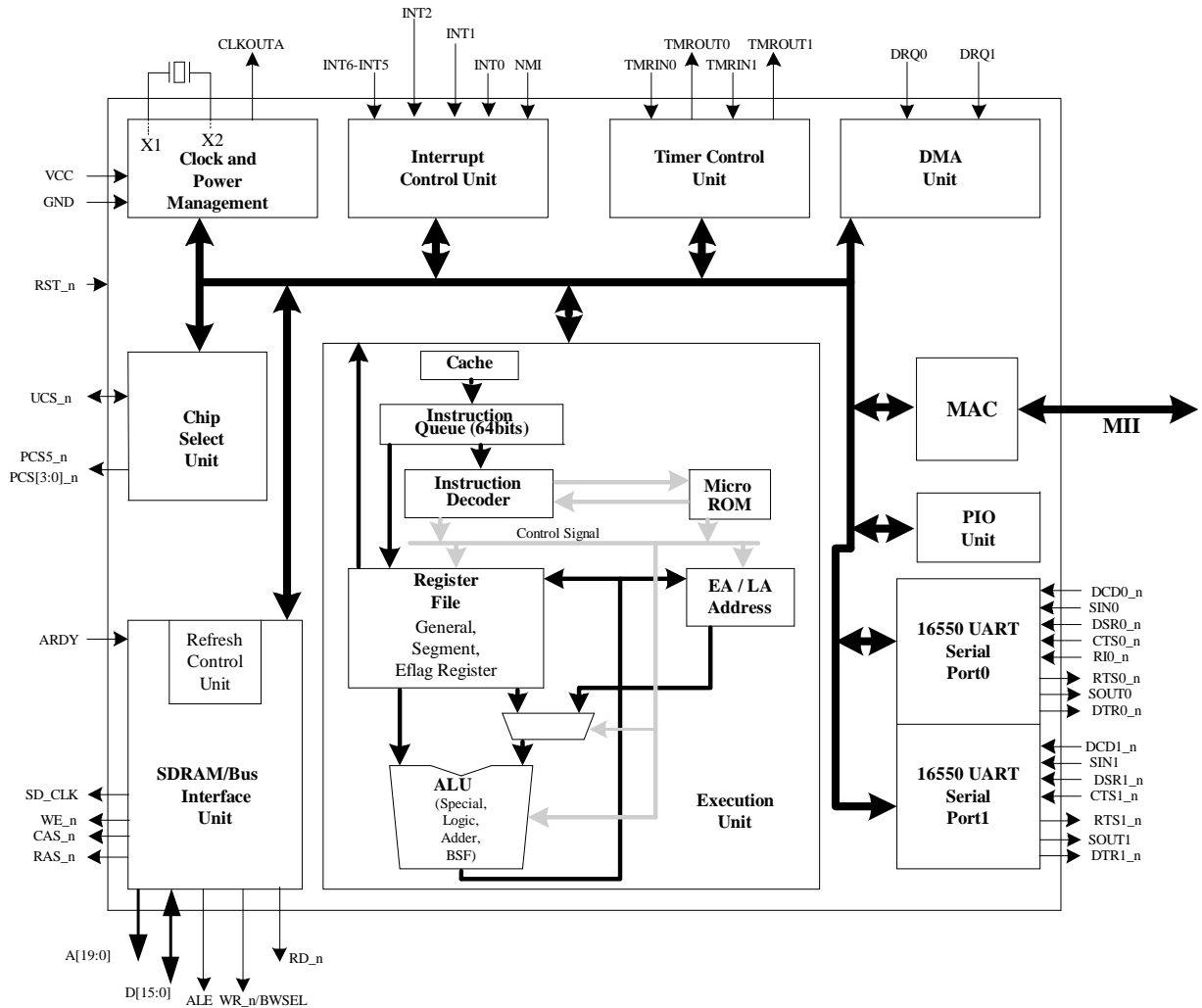
- 128-pin PQFP

- **A Product of Industrial Spec**

- Operation frequency: 75MHz
- Ambient temperature: -40 ~ 80°C

- **A Green Product**

## 2. Block Diagram



### 3. Package Information

PQFP 128 pins

